

10/604377

[Home](#) | [Login](#) | [Logout](#) | [Access Information](#) | [Alerts](#) |



[Search Session History](#)

Welcome United States Patent and Trademark Office

[BROWSE](#)

[SEARCH](#)

[IEEE XPORE GUIDE](#)

Mon, 18 Jun 2007, 8:38:08 PM EST

Edit an existing query or  
compose a new query in the  
Search Query Display.

Select a search number (#)  
to:

- Add a query to the Search Query Display
- Combine search queries using AND, OR, or NOT
- Delete a search
- Run a search

**Search Query Display**

**Recent Search Queries**

#1 ((determin\* <or> comput\* <or> calculat\*) <sentence> wheel  
<sentence> (train <or> locomotive)) <and> gps\* and (wheel\*  
<sentence> (revolution <or> turn\* <or> rev)) <in> pdfdata

#2 ((determin\* <or> comput\* <or> calculat\*) <sentence> wheel  
<sentence> (train <or> locomotive)) <and> (wheel\* <sentence>  
(revolution <or> turn\* <or> rev)) <in> pdfdata

#3 ((determin\* <or> comput\* <or> calculat\*) <sentence> wheel  
<sentence> (train <or> locomotive)) <and> (wheel\* <sentence>  
(revolution <or> turn\* <or> rev)) <in> pdfdata

#4 ((determin\* <or> comput\* <or> calculat\*) <sentence> wheel  
<sentence> (train <or> locomotive)) <and> (wheel\* <sentence>  
(revolution <or> turn\* <or> rev)) <in> pdfdata

#5 ((determin\* <or> comput\* <or> calculat\*) <sentence> wheel  
<sentence> (train <or> locomotive)) <and> (wheel\* <sentence>  
(revolution <or> turn\* <or> rev)) <and> integration\* <in> pdfdata

#6 ((determin\* <or> comput\* <or> calculat\*) <sentence> wheel  
<sentence> (train <or> locomotive)) <and> (wheel\* <sentence>  
(revolution <or> turn\* <or> rev)) <and> integration\* <in> pdfdata

#7 ((determin\* <or> comput\* <or> calculat\*) <sentence> wheel  
<sentence> (train <or> locomotive)) <and> (wheel\* <sentence>  
(revolution <or> turn\* <or> rev)) <and> integration\* <in> pdfdata

#8 ((determin\* <or> comput\* <or> calculat\*) <sentence> wheel  
<sentence> (train <or> locomotive)) <and> (wheel\* <sentence>  
(revolution <or> turn\* <or> rev)) <and> integration\* <in> pdfdata

#9 ((determin\* <or> comput\* <or> calculat\*) <sentence> wheel  
<sentence> (train <or> locomotive)) <and> (wheel\* <sentence>  
(revolution <or> turn\* <or> rev)) <in> pdfdata

#10 ((determin\* <or> comput\* <or> calculat\*) <sentence> wheel  
<sentence> (train <or> locomotive)) <and> (wheel\* <sentence>  
(revolution <or> turn\* <or> rev)) <in> pdfdata

#11 ((determin\* <or> comput\* <or> calculat\*) <sentence> wheel  
<sentence> (train <or> locomotive)) <and> (wheel\* <sentence>  
(revolution <or> turn\* <or> rev)) <in> pdfdata

((determin\* <or> comput\* <or> calculat\*) <sentence> wheel

#12 <sentence> (train <or> locomotive)) <and> (wheel\* <sentence> (revolution <or> turn\* <or> rev)) <in> pdfdata

#13 ((determin\* <or> comput\* <or> calculat\*) <sentence> wheel <sentence> (train <or> locomotive)) <and> gps\* and (wheel\* <sentence> (revolution <or> turn\* <or> rev)) <in> pdfdata

[Help](#) [Contact Us](#) [Privacy & S](#)

© Copyright 2006 IEEE -

Indexed by  
 Inspec®

**Search Results****Welcome United States Patent and Trademark Office**[BROWSE](#)[SEARCH](#)[IEEE XPORE GUIDE](#)[e-mail](#)

Results for "((determin\* &lt;or&gt; comput\* &lt;or&gt; calculat\*) &lt;sentence&gt; wheel &lt;sentence&gt; (train ..."

Your search matched 14 of 1589326 documents.

A maximum of 100 results are displayed, 25 to a page, sorted by Relevance in Descending order.

**» Search Options**[View Session History](#)[New Search](#)**Modify Search** [Search](#) Check to search only within this results setDisplay Format:  Citation  Citation & Abstract[view selected items](#) [Select All](#) [Deselect All](#)

- 1. **Wheel slippage and sinkage detection for planetary rovers**  
G. Reina; L. Ojeda; A. Milella; J. Borenstein;  
Mechatronics, IEEE/ASME Transactions on  
Volume 11, Issue 2, April 2006 Page(s):185 - 195  
Digital Object Identifier 10.1109/TMECH.2006.871095  
[AbstractPlus](#) | Full Text: [PDF\(1348 KB\)](#) [IEEE JNL](#)  
[Rights and Permissions](#)
  
- 2. **Motorcycle modeling for high-performance maneuvering**  
Hauser, J.; Saccon, A.;  
Control Systems Magazine, IEEE  
Volume 26, Issue 5, Oct. 2006 Page(s):89 - 105  
[AbstractPlus](#) | Full Text: [PDF\(1797 KB\)](#) [IEEE JNL](#)  
[Rights and Permissions](#)
  
- 3. **Power electronics Intensive solutions for advanced electric, hybrid electric vehicular power systems**  
Emadi, A.; Williamson, S.S.; Khaligh, A.;  
Power Electronics, IEEE Transactions on  
Volume 21, Issue 3, May 2006 Page(s):567 - 577  
Digital Object Identifier 10.1109/TPEL.2006.872378  
[AbstractPlus](#) | Full Text: [PDF\(720 KB\)](#) [IEEE JNL](#)  
[Rights and Permissions](#)
  
- 4. **Top three technical problems-a survey report [of power system planning]**  
Sener, P.P.; Greene, E.R., Jr.;  
Power Systems, IEEE Transactions on  
Volume 12, Issue 1, Feb. 1997 Page(s):230 - 244  
Digital Object Identifier 10.1109/59.574944  
[AbstractPlus](#) | Full Text: [PDF\(1184 KB\)](#) [IEEE JNL](#)  
[Rights and Permissions](#)
  
- 5. **General survey of the possible applications and development tendencies levitation technology**  
Rogg, D.;  
Magnetics, IEEE Transactions on

- 6. **Navigation: ships to space**  
Kayton, M.;  
[Aerospace and Electronic Systems, IEEE Transactions on](#)  
Volume 24, Issue 5, Sept. 1988 Page(s):474 - 519  
Digital Object Identifier 10:1109/7.9678  
[AbstractPlus](#) | Full Text: [PDF\(6132 KB\)](#) IEEE JNL  
[Rights and Permissions](#)
- 7. **A new family of omnidirectional and holonomic wheeled platforms for mobile manipulation**  
Pin, F.G.; Killough, S.M.;  
[Robotics and Automation, IEEE Transactions on](#)  
Volume 10, Issue 4, Aug. 1994 Page(s):480 - 489  
Digital Object Identifier 10.1109/70.313098  
[AbstractPlus](#) | Full Text: [PDF\(1532 KB\)](#) IEEE JNL  
[Rights and Permissions](#)
- 8. **The hardware design of a real-time HIL for traction assist simulation**  
Alles, S.; Swick, C.A.; Hoffman, M.E.; Mahmud, S.M.; Feng Lin;  
[Vehicular Technology, IEEE Transactions on](#)  
Volume 44, Issue 3, Aug. 1995 Page(s):668 - 682  
Digital Object Identifier 10.1109/25.406636  
[AbstractPlus](#) | Full Text: [PDF\(956 KB\)](#) IEEE JNL  
[Rights and Permissions](#)
- 9. **Trajectory generation for the N-trailer problem using Goursat normal form**  
Tilbury, D.; Murray, R.M.; Shankar Sastry, S.;  
[Automatic Control, IEEE Transactions on](#)  
Volume 40, Issue 5, May 1995 Page(s):802 - 819  
Digital Object Identifier 10.1109/9.384215  
[AbstractPlus](#) | Full Text: [PDF\(1628 KB\)](#) IEEE JNL  
[Rights and Permissions](#)
- 10. **System for assisted mobility using eye movements based on electrooculography**  
Barea, R.; Boquete, L.; Mazo, M.; Lopez, E.;  
[Neural Systems and Rehabilitation Engineering, IEEE Transactions on \[see also: Rehabilitation Engineering\]](#)  
Volume 10, Issue 4, Dec. 2002 Page(s):209 - 218  
Digital Object Identifier 10.1109/TNSRE.2002.806829  
[AbstractPlus](#) | [References](#) | Full Text: [PDF\(851 KB\)](#) IEEE JNL  
[Rights and Permissions](#)
- 11. **Compensation of axle-generator errors due to wheel slip and slide**  
Saab, S.S.; Nasr, G.E.; Badr, E.A.;  
[Vehicular Technology, IEEE Transactions on](#)  
Volume 51, Issue 3, May 2002 Page(s):577 - 587  
Digital Object Identifier 10.1109/TVT.2002.1002506  
[AbstractPlus](#) | [References](#) | Full Text: [PDF\(340 KB\)](#) IEEE JNL  
[Rights and Permissions](#)
- 12. **The CMAC based FLC and its application to rear-loading truck problems**  
Hung-Ching Lu; Ted Tao;  
[Fuzzy Systems, 2003. FUZZ '03. The 12th IEEE International Conference on](#)  
Volume 1, 25-28 May 2003 Page(s):173 - 178 vol.1  
[AbstractPlus](#) | Full Text: [PDF\(424 KB\)](#) IEEE CNF

Rights and Permissions

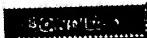
13. **Field demonstrations of two prototype high-speed tribometers**  
Reiff, R.; Cooke, J.;  
Proceedings of the 1999 ASME/IEEE Joint Railroad Conference, 1999.  
13-15 April 1999 Page(s):184 - 195  
Digital Object Identifier 10.1109/RRCON.1999.762418  
[AbstractPlus](#) | Full Text: [PDF\(972 KB\)](#) [IEEE CNF](#)  
[Rights and Permissions](#)

14. **Optimising vehicle positioning systems on automatic railways-a case study**  
Wallace, P.R.;  
Developments in Mass Transit Systems, 1998. International Conference on (C453)  
20-23 April 1998 Page(s):202 - 207  
[AbstractPlus](#) | Full Text: [PDF\(532 KB\)](#) [IET CNF](#)

[Help](#) [Contact Us](#) [Privacy & S](#)

© Copyright 2006 IEEE -

Indexed by  
 Inspec®

**AbstractPlus**[View Search Results](#) | [Previous Article](#) | [Next Article](#) e-r**Access this document** [Full Text: PDF \(1184 KB\)](#)**Download this citation**Choose [Citation & Abstract](#) Download [ASCII Text](#) [» Learn More](#)**Rights and Permissions**[» Learn More](#)

## Top three technical problems-a survey report [of power s planning]

**Sener, P.P., Greene, E.R., Jr.**

PHE Consulting Services, Brecksville, OH, USA;

This paper appears in: [Power Systems, IEEE Transactions on](#)

Publication Date: Feb. 1997

Volume: 12, Issue: 1

On page(s): 230 - 244

ISSN: 0885-8950

CODEN: ITPSEG

INSPEC Accession Number: 5530391

Digital Object Identifier: 10.1109/59.574944

Posted online: 2002-08-06 21:26:42.0

**Abstract**

This paper presents the results of a survey of the power system planners across the United States. The intent of the survey was to identify the three top technical problems facing power system planners. Results indicate that the major concern for the uncertainties in the electric utility industry and the related technical

**Index Terms****Inspec****Controlled Indexing**[electricity supply industry](#) [power system planning](#)**Non-controlled Indexing**[USA](#) [electric utility industry](#) [power system planning](#) [survey report](#) [technical p](#)**Author Keywords**

Not Available

**References**

No references available on IEEE Xplore.

**Citing Documents**

No citing documents available on IEEE Xplore.

[View Search Results](#) | [Previous Article](#) | [Next Article](#)[Help](#) [Contact Us](#) [Privacy](#)

© Copyright 2006 IEEE

Indexed by  
 **Inspec**

**AbstractPlus**[View Search Results](#) | [Previous Article](#) | [Next Article](#)**Access this document** [Full Text: PDF \(3853 KB\)](#)**Download this citation**Choose [Citation & Abstract](#)Download [ASCII Text](#)

## New Tokaido line

**Fujii, M.**This paper appears in: [Proceedings of the IEEE](#)

Publication Date: April 1968

Volume: 56 , Issue: 4

On page(s): 625 - 645

ISSN: 0018-9219

Posted online: 2005-06-28 14:46:36.0

[» Learn More](#)**Rights and Permissions**[» Learn More](#)**Abstract**

This paper describes the technical features of the New Tokaido Line and is composed of Section I presents the historical and social background of the construction of the NTL. Section II presents the technical and economic studies on the relation of the NTL to the existing narrow-gauge line, economic influences, etc., which were used in making the fundamental decisions about the maximum train speed, motive power, etc. Section III presents the features of the operation of the NTL. Section IV gives a comparison with the narrow-gauge line, describes the features of the roadbed, bridges, tunnels, track, buildings, power source, overhead equipment, signal communication facilities, and mentions a study on high-speed train operation of similar facilities by the Railway Technical Research Institute and on the test run section. Section V discusses the inauguration of the new line and the measures taken to solve the problems involved in the face of an increase of traffic. Section VI describes the present state of maintenance of the New Tokaido Line. Finally, a general view of the planned New San-yo Line as an extension of the New Tokaido Line is presented in Section VII.

**Index Terms****Inspec****Controlled Indexing**

Not Available

**Non-controlled Indexing**

Not Available

**Author Keywords**

Not Available

**References**

No references available on IEEE Xplore.

**Citing Documents**

No citing documents available on IEEE Xplore.

[View Search Results](#) | [Previous Article](#) | [Next Article](#)[Help](#) [Contact Us](#) [Privacy](#)

© Copyright 2006 IEEE

**AbstractPlus**[View Search Results](#) | [Previous Article](#) | [Next Article](#)**Access this document** Full Text: [PDF](#) (2211 KB)**Download this citation**Choose [Citation & Abstract](#)Download [ASCII Text](#)[» Learn More](#)**Rights and Permissions**[» Learn More](#)**Welcome United States Patent and Trademark Office**[BROWSE](#)[SEARCH](#)[IEEE Xplore GUIDE](#)

## Teito rapid transit authority's automatic train operation

**Shirai, Y. Ishihara, Y.**This paper appears in: [Proceedings of the IEEE](#)

Publication Date: April 1968

Volume: 56 , Issue: 4

On page(s): 605 - 615

ISSN: 0018-9219

Posted online: 2005-06-28 14:46:36.0

### Abstract

The traffic congestion in and around Tokyo has become intensified year after year, and this to be looked upon as the most effective way of eliminating it, or alleviating it to an appreciable extent. The Teito Rapid Transit Authority (TRTA) in Japan has had an automatic train control (ATC) system in operation for many years to ensure safety adequately while fully exploiting its service efficiency. With the ever-increasing population and transport demand, the Authority in its quest for higher efficiency in train operation pioneered in developing an automatic train operation (ATO) system and has installed it on the Hibiya Line since 1962. Under the ATO, all train functions-notch-in, power running, coasting, and stopping—are performed automatically. The motorman simply presses a pushbutton to start the train, which then runs on safely under ATC and stops smoothly, accurately, and automatically at the designated stations. The Authority is satisfied with the results of tests in regard to the durability, reliability, and accuracy of the system, and is also satisfied with the results of tests in regard to the durability, reliability, and accuracy of the system in regard to riding quality. The Authority is convinced that by putting this new system into operation, it will be able to carry on passenger service at a shorter headway, with greater safety and accuracy, and at a lower cost to the public. Further study is now under way to improve the system by combining it with a traffic control system and an inductive radio system, in order to exercise group control over the entire track.

### Index Terms

**Inspec****Controlled Indexing**

Not Available

**Non-controlled Indexing**

Not Available

**Author Keywords**

Not Available

### References

No references available on IEEE Xplore.

### Citing Documents

No citing documents available on IEEE Xplore.

[View Search Results](#) | [Previous Article](#) | [Next Article](#)[Help](#) [Contact Us](#) [Privacy](#)

© Copyright 2006 IEEE

**AbstractPlus**[View Search Results](#) | [Previous Article](#) | [Next Article](#)**Access this document** Full Text: [PDF](#) (1064 KB)**Download this citation**Choose [Citation & Abstract](#) Download [ASCII Text](#) [» Learn More](#)**Rights and Permissions**[» Learn More](#)

## General survey of the possible applications and development tendencies of magnetic levitation technology

**Rogg, D.**

Dornier Systems GmbH, Friedrichshafen, Germany

This paper appears in: [Magnetics, IEEE Transactions on](#)

Publication Date: Sep 1984

Volume: 20, Issue: 5

On page(s): 1696 - 1701

ISSN: 0018-9464

Posted online: 2003-01-06 16:49:44.0

**BROWSE****SEARCH****IEEE XPLOR GUIDE****Abstract**

The most important versions of the magnetic levitation technique are expounded in the following programme of the magnetic levitation development in the Federal Republic of Germany in the electromagnetic levitation technique and its development up to operational readiness and accounted for. The present survey emphasizes the main advantages of the levitation specific characteristics, defines fields of application and shows concrete possibilities of use. The optimum development are briefly pictured.

**Index Terms****Inspec****Controlled Indexing**

Not Available

**Non-controlled Indexing**[Magnetic levitation, guideway transportation](#)**Author Keywords**

Not Available

**References**

No references available on IEEE Xplore.

**Citing Documents**

No citing documents available on IEEE Xplore.

[View Search Results](#) | [Previous Article](#) | [Next Article](#)[Help](#) [Contact Us](#) [Privacy](#)

© Copyright 2006 IEEE

Indexed by  
 **Inspec**

AbstractPlus

[View Search Results](#) | [Previous Article](#) | [Next Article](#)



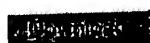
Access this document

Full Text: [PDF](#) (1797 KB)

Download this citation

Choose [Citation & Abstract](#)

Download [ASCII Text](#)



[» Learn More](#)

[Rights and Permissions](#)

[» Learn More](#)

## Motorcycle modeling for high-performance maneuvering

Hauser, J. Saccon, A.

This paper appears in: [Control Systems Magazine, IEEE](#)

Publication Date: Oct. 2006

Volume: 26 , Issue: 5

On page(s): 89 - 105

ISSN: 0272-1708

Posted online: 2006-09-18 09:25:28.0

### Abstract

Not Available

### Index Terms

Inspec

[Controlled Indexing](#)

Not Available

[Non-controlled Indexing](#)

Not Available

### Author Keywords

Not Available

### References

No references available on IEEE Xplore.

### Citing Documents

No citing documents available on IEEE Xplore.

[View Search Results](#) | [Previous Article](#) | [Next Article](#)

[Help](#) [Contact Us](#) [Privacy](#)

© Copyright 2006 IEE

Indexed by  
 Inspec®

**Search Results**

Results for "((determin\* &lt;or&gt; comput\* &lt;or&gt; calculat\*) &lt;sentence&gt; wheel &lt;sentence&gt; (train ..."

Your search matched 37 of 1589326 documents.

A maximum of 100 results are displayed, 25 to a page, sorted by Relevance in Descending order.

[e-mail](#)**» Search Options**[View Session History](#)[New Search](#)**Modify Search** [Search](#) Check to search only within this results setDisplay Format:  Citation  Citation & Abstract**» Key****IEEE JNL** IEEE Journal or Magazine**IET JNL** IET Journal or Magazine**IEEE CNF** IEEE Conference Proceeding**IET CNF** IET Conference Proceeding**IEEE STD** IEEE Standard[view selected items](#) [Select All](#) [Deselect All](#) 1. **Digital route panoramas**

Jiang Yu Zheng;  
Multimedia, IEEE  
Volume 10, Issue 3, July-Sept. 2003 Page(s):57 - 67  
Digital Object Identifier 10.1109/MMUL.2003.1218257

[AbstractPlus](#) | [References](#) | Full Text: [PDF\(2394 KB\)](#) [IEEE JNL](#)  
[Rights and Permissions](#)

 2. **Wheel slippage and sinkage detection for planetary rovers**

G. Reina; L. Ojeda; A. Milella; J. Borenstein;  
Mechatronics, IEEE/ASME Transactions on  
Volume 11, Issue 2, April 2006 Page(s):185 - 195  
Digital Object Identifier 10.1109/TMECH.2006.871095

[AbstractPlus](#) | Full Text: [PDF\(1348 KB\)](#) [IEEE JNL](#)  
[Rights and Permissions](#)

 3. **An innovative drive for wheeled mobile robots**

J. Angeles;  
Mechatronics, IEEE/ASME Transactions on  
Volume 10, Issue 1, Feb. 2005 Page(s):43 - 49  
Digital Object Identifier 10.1109/TMECH.2004.842231

[AbstractPlus](#) | Full Text: [PDF\(504 KB\)](#) [IEEE JNL](#)  
[Rights and Permissions](#)

 4. **Active damping of drive train oscillations for an electrically driven vehicle**

N. Amann; J. Bocker; F. Prener;  
Mechatronics, IEEE/ASME Transactions on  
Volume 9, Issue 4, Dec. 2004 Page(s):697 - 700  
Digital Object Identifier 10.1109/TMECH.2004.839036

[AbstractPlus](#) | [References](#) | Full Text: [PDF\(366 KB\)](#) [IEEE JNL](#)  
[Rights and Permissions](#)

 5. **The solution of municipal rapid transit**

Sprague, F.J.;  
Proceedings of the IEEE  
Volume 72, Issue 2, Feb. 1984 Page(s):175 - 195

- 6. **New Tokaido line**  
Fujii, M.;  
[Proceedings of the IEEE](#)  
Volume 56, Issue 4, April 1968 Page(s):625 - 645  
[AbstractPlus](#) | Full Text: [PDF\(3853 KB\)](#) IEEE JNL  
[Rights and Permissions](#)
  
- 7. **Telco rapid transit authority's automatic train operation**  
Shirai, Y.; Ishihara, Y.;  
[Proceedings of the IEEE](#)  
Volume 56, Issue 4, April 1968 Page(s):605 - 615  
[AbstractPlus](#) | Full Text: [PDF\(2211 KB\)](#) IEEE JNL  
[Rights and Permissions](#)
  
- 8. **Motorcycle modeling for high-performance maneuvering**  
Hauser, J.; Saccon, A.;  
[Control Systems Magazine, IEEE](#)  
Volume 26, Issue 5, Oct. 2006 Page(s):89 - 105  
[AbstractPlus](#) | Full Text: [PDF\(1797 KB\)](#) IEEE JNL  
[Rights and Permissions](#)
  
- 9. **Programmable digital vehicle control system**  
Lang, R.P.; Freitag, D.B.;  
[Vehicular Technology, IEEE Transactions on](#)  
Volume 28, Issue 1, Feb 1979 Page(s):80 - 87  
[AbstractPlus](#) | Full Text: [PDF\(1040 KB\)](#) IEEE JNL  
[Rights and Permissions](#)
  
- 10. **Power electronics intensive solutions for advanced electric, hybrid electric vehicular power systems**  
Emadi, A.; Williamson, S.S.; Khaligh, A.;  
[Power Electronics, IEEE Transactions on](#)  
Volume 21, Issue 3, May 2006 Page(s):567 - 577  
Digital Object Identifier 10.1109/TPEL.2006.872378  
[AbstractPlus](#) | Full Text: [PDF\(720 KB\)](#) IEEE JNL  
[Rights and Permissions](#)
  
- 11. **Top three technical problems-a survey report [of power system planning]**  
Sener, P.P.; Greene, E.R., Jr.;  
[Power Systems, IEEE Transactions on](#)  
Volume 12, Issue 1, Feb. 1997 Page(s):230 - 244  
Digital Object Identifier 10.1109/59.574944  
[AbstractPlus](#) | Full Text: [PDF\(1184 KB\)](#) IEEE JNL  
[Rights and Permissions](#)
  
- 12. **Learning concept descriptions with typed evolutionary programming**  
Thie, C.J.; Giraud-Carrier, C.;  
[Knowledge and Data Engineering, IEEE Transactions on](#)  
Volume 17, Issue 12, Dec. 2005 Page(s):1664 - 1677  
Digital Object Identifier 10.1109/TKDE.2005.199  
[AbstractPlus](#) | Full Text: [PDF\(1304 KB\)](#) IEEE JNL  
[Rights and Permissions](#)
  
- 13. **General survey of the possible applications and development tendencies levitation technology**

Rogg, D.;  
Magnetics, IEEE Transactions on  
Volume 20, Issue 5, Sep 1984 Page(s):1696 - 1701  
[AbstractPlus](#) | Full Text: [PDF\(1064 KB\)](#) IEEE JNL  
[Rights and Permissions](#)

- 14. **Discontinuities in the Center Conductor of Symmetric Strip Transmission**  
Microwave Theory and Techniques, IEEE Transactions on  
Volume 8, Issue 3, May 1960 Page(s):328 - 339  
[AbstractPlus](#) | Full Text: [PDF\(1328 KB\)](#) IEEE JNL  
[Rights and Permissions](#)
- 15. **Navigation: ships to space**  
Kayton, M.;  
Aerospace and Electronic Systems, IEEE Transactions on  
Volume 24, Issue 5, Sept. 1988 Page(s):474 - 519  
Digital Object Identifier 10.1109/7.9678  
[AbstractPlus](#) | Full Text: [PDF\(6132 KB\)](#) IEEE JNL  
[Rights and Permissions](#)
- 16. **Learning based on conceptual distance**  
Kodratoff, Y.; Tecuci, G.;  
Pattern Analysis and Machine Intelligence, IEEE Transactions on  
Volume 10, Issue 6, Nov. 1988 Page(s):897 - 909  
Digital Object Identifier 10.1109/34.9111  
[AbstractPlus](#) | Full Text: [PDF\(1160 KB\)](#) IEEE JNL  
[Rights and Permissions](#)
- 17. **A control theoretic model of driver steering behavior**  
Hess, R.A.; Modjtahedzadeh, A.;  
Control Systems Magazine, IEEE  
Volume 10, Issue 5, Aug. 1990 Page(s):3 - 8  
Digital Object Identifier 10.1109/37.60415  
[AbstractPlus](#) | Full Text: [PDF\(488 KB\)](#) IEEE JNL  
[Rights and Permissions](#)
- 18. **Mobile robot control by a structured hierarchical neural network**  
Nagata, S.; Sekiguchi, M.; Asakawa, K.;  
Control Systems Magazine, IEEE  
Volume 10, Issue 3, April 1990 Page(s):69 - 76  
Digital Object Identifier 10.1109/37.55127  
[AbstractPlus](#) | Full Text: [PDF\(664 KB\)](#) IEEE JNL  
[Rights and Permissions](#)
- 19. **A simplified neural network solution through problem decomposition: the truck backer-upper**  
Jenkins, R.E.; Yuhas, B.P.;  
Neural Networks, IEEE Transactions on  
Volume 4, Issue 4, July 1993 Page(s):718 - 720  
Digital Object Identifier 10.1109/72.238326  
[AbstractPlus](#) | Full Text: [PDF\(292 KB\)](#) IEEE JNL  
[Rights and Permissions](#)
- 20. **A new family of omnidirectional and holonomic wheeled platforms for mobile robots**  
Pin, F.G.; Killough, S.M.;  
Robotics and Automation, IEEE Transactions on  
Volume 10, Issue 4, Aug. 1994 Page(s):480 - 489  
Digital Object Identifier 10.1109/70.313098

- 21. **A multisteering trailer system: conversion into chained form using dynamic programming**  
Tilbury, D.; Sordalen, O.J.; Bushnell, L.; Sastry, S.S.;  
[Robotics and Automation, IEEE Transactions on](#)  
Volume 11, Issue 6, Dec. 1995 Page(s):807 - 818  
Digital Object Identifier 10.1109/70.478428  
[AbstractPlus](#) | Full Text: [PDF\(1184 KB\)](#) [IEEE JNL](#)  
[Rights and Permissions](#)
  
- 22. **The hardware design of a real-time HIL for traction assist simulation**  
Alles, S.; Swick, C.A.; Hoffman, M.E.; Mahmud, S.M.; Feng Lin;  
[Vehicular Technology, IEEE Transactions on](#)  
Volume 44, Issue 3, Aug. 1995 Page(s):668 - 682  
Digital Object Identifier 10.1109/25.406636  
[AbstractPlus](#) | Full Text: [PDF\(956 KB\)](#) [IEEE JNL](#)  
[Rights and Permissions](#)
  
- 23. **Trajectory generation for the N-trailer problem using Goursat normal form**  
Tilbury, D.; Murray, R.M.; Shankar Sastry, S.;  
[Automatic Control, IEEE Transactions on](#)  
Volume 40, Issue 5, May 1995 Page(s):802 - 819  
Digital Object Identifier 10.1109/9.384215  
[AbstractPlus](#) | Full Text: [PDF\(1628 KB\)](#) [IEEE JNL](#)  
[Rights and Permissions](#)
  
- 24. **Wheel+legs-a new solution for traction enhancement without additive solenoids**  
Maza, M.; Fontaine, J.G.; Gonzalez de Santos, P.; Papantoniou, V.; Mas, M.;  
[Robotics & Automation Magazine, IEEE](#)  
Volume 4, Issue 4, Dec. 1997 Page(s):26 - 33  
Digital Object Identifier 10.1109/100.637803  
[AbstractPlus](#) | [References](#) | Full Text: [PDF\(1612 KB\)](#) [IEEE JNL](#)  
[Rights and Permissions](#)
  
- 25. **Postural stability of a human riding a unicycle and its emulation by a robot**  
Sheng, Z.; Yamafuji, K.;  
[Robotics and Automation, IEEE Transactions on](#)  
Volume 13, Issue 5, Oct. 1997 Page(s):709 - 720  
Digital Object Identifier 10.1109/70.631232  
[AbstractPlus](#) | Full Text: [PDF\(228 KB\)](#) [IEEE JNL](#)  
[Rights and Permissions](#)

## Search Results

BROWSE

SEARCH

IEEE Xplore GUIDE

Results for "((determin\* <or> comput\* <or> calculat\*) <sentence> wheel <sentence> (train ...)"  
Your search matched 37 of 1589326 documents.

 e-mail

A maximum of 37 results are displayed, 25 to a page, sorted by Relevance in Descending order.

## » Search Options

[View Session History](#)[New Search](#)

## Modify Search

## » Key

**IEEE JNL** IEEE Journal or Magazine**IET JNL** IET Journal or Magazine**IEEE CNF** IEEE Conference Proceeding**IET CNF** IET Conference Proceeding**IEEE STD** IEEE Standard

Check to search only within this results set  
Display Format:  Citation  Citation & Abstract

26. **Dynamically simulated characters in virtual environments**  
Brogan, D.C.; Metoyer, R.A.; Hodgins, J.K.;  
*Computer Graphics and Applications, IEEE*  
Volume 18, Issue 5, Sept.-Oct. 1998 Page(s):58 - 69  
Digital Object Identifier 10.1109/38.708561  
[AbstractPlus](#) | [References](#) | Full Text: [PDF\(1252 KB\)](#) [IEEE JNL](#)  
[Rights and Permissions](#)

27. **Big government projects: which are successful and why?**  
Bohn, J.G.;  
*Technology and Society Magazine, IEEE*  
Volume 17, Issue 3, Fall 1998 Page(s):24 - 31  
Digital Object Identifier 10.1109/44.708285  
[AbstractPlus](#) | [References](#) | Full Text: [PDF\(2308 KB\)](#) [IEEE JNL](#)  
[Rights and Permissions](#)

28. **System for assisted mobility using eye movements based on electrooculo**  
Barea, R.; Boquete, L.; Mazo, M.; Lopez, E.;  
*Neural Systems and Rehabilitation Engineering, IEEE Transactions on [see also Rehabilitation Engineering]*  
Volume 10, Issue 4, Dec. 2002 Page(s):209 - 218  
Digital Object Identifier 10.1109/TNSRE.2002.806829  
[AbstractPlus](#) | [References](#) | Full Text: [PDF\(851 KB\)](#) [IEEE JNL](#)  
[Rights and Permissions](#)

29. **Compensation of axle-generator errors due to wheel slip and slide**  
Saab, S.S.; Nasr, G.E.; Badr, E.A.;  
*Vehicular Technology, IEEE Transactions on*  
Volume 51, Issue 3, May 2002 Page(s):577 - 587  
Digital Object Identifier 10.1109/TVT.2002.1002506  
[AbstractPlus](#) | [References](#) | Full Text: [PDF\(340 KB\)](#) [IEEE JNL](#)  
[Rights and Permissions](#)

30. **Autonomous fuzzy parking control of a car-like mobile robot**  
Li, T.-H.S.; Shih-Jie Chang;  
*Systems, Man and Cybernetics, Part A, IEEE Transactions on*

- 31. Analysis and control of a flywheel hybrid vehicular powertrain**  
Shen, S.; Veldpaus, F.E.;  
[Control Systems Technology, IEEE Transactions on](#)  
Volume 12, Issue 5, Sept. 2004 Page(s):645 - 660  
Digital Object Identifier 10.1109/TCST.2004.824792  
[AbstractPlus](#) | [References](#) | Full Text: [PDF\(624 KB\)](#) IEEE JNL  
[Rights and Permissions](#)
  
- 32. Bicycle dynamics and control: adapted bicycles for education and research**  
Astrom, K.J.; Klein, R.E.; Lennartsson, A.;  
[Control Systems Magazine, IEEE](#)  
Volume 25, Issue 4, Aug. 2005 Page(s):26 - 47  
Digital Object Identifier 10.1109/MCS.2005.1499389  
[AbstractPlus](#) | Full Text: [PDF\(2904 KB\)](#) IEEE JNL  
[Rights and Permissions](#)
  
- 33. Programmable digital vehicle control system**  
Lang, R.P.; Freitag, D.B.;  
[Vehicular Technology Conference, 1978. 28th IEEE](#)  
Volume 28, 22-24 March 1978 Page(s):329 - 335  
[AbstractPlus](#) | Full Text: [PDF\(1128 KB\)](#) IEEE CNF  
[Rights and Permissions](#)
  
- 34. Measurement of the tractive force and the new adhesion control by the new tractive force measurement equipment**  
Kawamura, A.; Takeuchi, K.; Furuya, T.; Takaoka, Y.; Yoshimoto, K.; Meifen C  
[Power Conversion Conference, 2002. PCC Osaka 2002. Proceedings of the](#)  
Volume 2, 2-5 April 2002 Page(s):879 - 884 vol.2  
Digital Object Identifier 10.1109/PCC.2002.997637  
[AbstractPlus](#) | Full Text: [PDF\(664 KB\)](#) IEEE CNF  
[Rights and Permissions](#)
  
- 35. The CMAC based FLC and its application to rear-loading truck problems**  
Hung-Ching Lu; Ted Tao;  
[Fuzzy Systems, 2003. FUZZ '03. The 12th IEEE International Conference on](#)  
Volume 1, 25-28 May 2003 Page(s):173 - 178 vol.1  
[AbstractPlus](#) | Full Text: [PDF\(424 KB\)](#) IEEE CNF  
[Rights and Permissions](#)
  
- 36. Field demonstrations of two prototype high-speed tribometers**  
Reiff, R.; Cooke, J.;  
[Railroad Conference, 1999. Proceedings of the 1999 ASME/IEEE Joint](#)  
13-15 April 1999 Page(s):184 - 195  
Digital Object Identifier 10.1109/RRCON.1999.762418  
[AbstractPlus](#) | Full Text: [PDF\(972 KB\)](#) IEEE CNF  
[Rights and Permissions](#)
  
- 37. Optimising vehicle positioning systems on automatic railways-a case study**  
Wallace, P.R.;  
[Developments in Mass Transit Systems, 1998. International Conference on \(C 453\)](#)  
20-23 April 1998 Page(s):202 - 207  
[AbstractPlus](#) | Full Text: [PDF\(532 KB\)](#) IET CNF

AbstractPlus

BROWSE

SEARCH

IEEE Xplore GUIDE

◀ View Search Results | ▶ Previous Article |

e-r

## Access this document



Full Text: PDF (340 KB)

## Download this citation

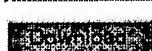
Choose

Citation &amp; Abstract



Download

ASCII Text



» Learn More

## Rights and Permissions

» Learn More

## Compensation of axle-generator errors due to wheel slip

Saab, S.S., Nasr, G.E., Badr, E.A.

Lebanese American Univ., Byblos, Lebanon;

This paper appears in: **Vehicular Technology, IEEE Transactions on**

Publication Date: May 2002

Volume: 51, Issue: 3

On page(s): 577 - 587

ISSN: 0018-9545

CODEN: ITVTAB

INSPEC Accession Number: 7286095

Digital Object Identifier: 10.1109/TVT.2002.1002506

Posted online: 2002-08-07 00:43:59.0

## Abstract

Significant errors of train axle generators (tachometers) are due to wheel slip and slide. A designed to compensate for these errors. The algorithm identifies the wheel slip and slide variation of the processed vehicle longitudinal acceleration. Whenever wheel slip/slide is vehicle speed is adjusted if a certain condition is met. The adjustment is a simple linear in the two speed values recorded before and after wheel slip/slide detection. In addition, a s acceleration observer using a Kalman filter is implemented. Experimental results using the encoders aboard a freight train are provided to illustrate the performance of the proposed

## Index Terms

Inspec

## Controlled Indexing

[Kalman filters](#) [acceleration measurement](#) [error compensation](#) [interpolation](#) [tachometers](#) [traction](#) [velocity measurement](#)

## Non-controlled Indexing

[Kalman filter](#) [error compensation](#) [freight train locomotive](#) [linear interpolation](#) [train axle generators](#) [train positioning](#) [vehicle longitudinal acceleration](#) [vehicle wheel slide](#) [wheel slip](#)

## Author Keywords

Not Available

## References

1. N. T. Tsai, D. Stone, and D. Haluza, "Recent developments in railroad safety standard 1998 ASME/IEEE Joint Railroad Conf. Philadelphia, PA, Apr. 1998, pp. 107-112.  
[Abstract](#) | [Full Text: PDF \(560KB\)](#)
2. presented at the *Federal Rail Administration, Interoperability Positive Train Separation* Baltimore, MD, Nov. 1995.  
[\[Buy Via Ask\\*|IEEE\]](#)
3. G. Welty, "Train control systems," *Railway Age: CI&S Buyer's Guide*, pp. 7-10, Jan. 19  
[\[Buy Via Ask\\*|IEEE\]](#)
4. S. Saab, K. Gunnarsson, J. Marchetti, J. Oliva, J. Wang, J. Gardner, and R. Wollyung *positioning system*: U.S. Dept. Transport. Fed. Transit Admin., Rep. FTA-PA-26-0007
5. S. Saab, "A map matching approach for train positioning!—Part I: Development and a *Veh. Technol.*, vol. 49, pp. 467-475, Mar. 2000.  
[Abstract](#) | [Full Text: PDF \(152KB\)](#)

6 S. Saab, "A map matching approach for train positioning\—Part II: Application and exp *Trans. Veh. Technol.*, vol. 49, pp. 476-484, Mar. 2000.  
[Abstract](#) | Full Text: [PDF](#) (148KB)

7 H. Yoshida, T. Ichikura, K. Oikawa, Y. Ohmagari, M. Kuroda, Y. Nishimura, J. H. Web R. Prasad, "An advanced on-board signaling and telecommunications system to supp signaling," in *Proc. 5th Int. Symp. Personal Indoor Mobile Radio Commun.* Den Haag, vol. 4, Sept. 1994, pp. 1410-1413.  
[Abstract](#) | Full Text: [PDF](#) (220KB)

8 A. Mirabadi, N. Mort, and F. Schmid, "Application of sensor fusion to railway systems, *IEEE/SICE/RSJ Int. Conf. Multisensor Fusion Integration Intelligent Systems* Washing pp. 185-192.  
[Abstract](#) | Full Text: [PDF](#) (712KB)

9 P. Heide, V. Magori, and R. Schwarte, "Coded 24 GHz doppler radar sensors: A new precision vehicle position and ground-speed sensing in railway and automobile applic *MTT-S Int. Microwave Symp. Dig.* Orlando, FL, vol. 2, May 1995, pp. 965-968.  
[Abstract](#) | Full Text: [PDF](#) (436KB)

10 T. Watanabe, A. Yamanaka, T. Hirose, K. Hosh, and S. Nakamura, "Optimization of re Shinkansen trains with wheel-rail adhesion prediction," in *Proc. Power Conversion Co Nagaoka*, vol. 1, Aug. 1997, pp. 47-50.  
[Abstract](#) | Full Text: [PDF](#) (320KB)

11 M. Garcia-Rivera, R. Sanz, and J. A. Perez-Rodriguez, "An antislipping fuzzy logic co traction system," in *Proc. 6th IEEE Int. Conf. Fuzzy Systems* Barcelona, Catalonia, Sp pp. 119-124.  
[Abstract](#) | Full Text: [PDF](#) (480KB)

12 T. Gajdar, I. Rudas, Y. Suda, and I. J. Rudas, "Neural network based estimation of fric wheel and rail," in *Proc. IEEE Int. Conf. Intelligent Engineering Systems* Budapest, Hu pp. 315-318.  
[Abstract](#) | Full Text: [PDF](#) (312KB)

13 I. Yasuoka, T. Henmi, Y. Nakazawa, and I. Aoyama, "Improvement of re-adhesion for vector control traction inverter," in *Proc. Power Conversion Conf.* Honolulu, HI: Nagao pp. 51-56.  
[Abstract](#) | Full Text: [PDF](#) (492KB)

14 T. Engelberg, "Design of correlation system for speed measurement of rail vehicles," *Confederation*, vol. 29, pp. 157-164, Mar. 2001.  
[Buy Via Ask\\*IEEE](#)

15 M. Ikeda, Y. Hasegawa, and H. Inage, *Characteristic of position detection and method correction by rotating axle*: Railway Tech. Res. Inst., Japan, 1990 Tech. Rep., pp. 323

#### Citing Documents

No citing documents available on IEEE Xplore.

[◀ View Search Results](#) | [◀ Previous Article](#) |

[Help](#) [Contact Us](#) [Privacy](#)

© Copyright 2006 IEE

**Access this document** Full Text: [PDF \(532 KB\)](#)**Download this citation**Choose [Citation & Abstract](#)Download [ASCII Text](#)[» Learn More](#)

## Optimising vehicle positioning systems on automatic rail study

**Wallace, P.R.**This paper appears in: [Developments in Mass Transit Systems, 1998. International C Publ. No. 453](#)

Publication Date: 20-23 April 1998

On page(s): 202 - 207

Number of Pages: xii+333

Meeting Date: 04/20/1998 - 04/23/1998

Location: London

INSPEC Accession Number: 5927685

Posted online: 2002-08-06 21:46:42.0

**Abstract**

As Prime Contractor for the Docklands Light Railway System Prime Contract, Booz-Allen (venture with Brown and Root Projects Ltd.) was responsible for completing the design and new advanced signalling system, new vehicle fleet and implementing organisational changes to integrate the new advanced signalling system with the new vehicle fleet. As the DLR railway system, the control and stopping accuracy of the vehicles was absolutely critical to the operation of the system. A major challenge for Booz-Allen was to optimise the on-board algorithm to stop the vehicles (at stations) reliably within a  $\pm 50$  cm window for 99.99% of the time. A more stringent safety target was to ensure that undetected errors in the train position could not accumulate so as to permit a train to stop and enable its doors beyond any station platform than  $10^{-9}$  per hour. Booz-Allen implemented a detailed design and test programme to optimise the control algorithm. This paper discusses the process adopted, details the design issues as achieving safe station stops, and presents actual test data collected throughout the test and development programme.

**Index Terms****Inspec****Controlled Indexing**

Not Available

**Non-controlled Indexing**

Not Available

**Author Keywords**

Not Available

**References**

No references available on IEEE Xplore.

**Citing Documents**

No citing documents available on IEEE Xplore.



